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ABSTRACT

To assist in local school improvement, Northwest Regional Educational Laboratory (NWREL) has developed an approach in which teams of local educational leaders are made aware of the results of effective schooling research and are trained in the processes of change and improvement. Research reviews have shown specific elements of schooling at the classroom, building, and district levels that promote school effectiveness in the areas of leadership, school environment, classroom instruction and management, curriculum, and assessment and evaluation. Using a NWREL-developed "Resource Kit" of references containing specific methods and techniques, the team looks to the resources to better understand the methodology necessary to reach their previously selected improvement goal. As each practice or group of practices is implemented, the leadership team monitors its progress according to its plan, the actual practices, and the changes in student achievement and/or behavior. As each implementation plan developed by the school leadership team is completed and practices are put into place in the school, the team once again begins the process, incorporating new research findings that may be available. (MLF)

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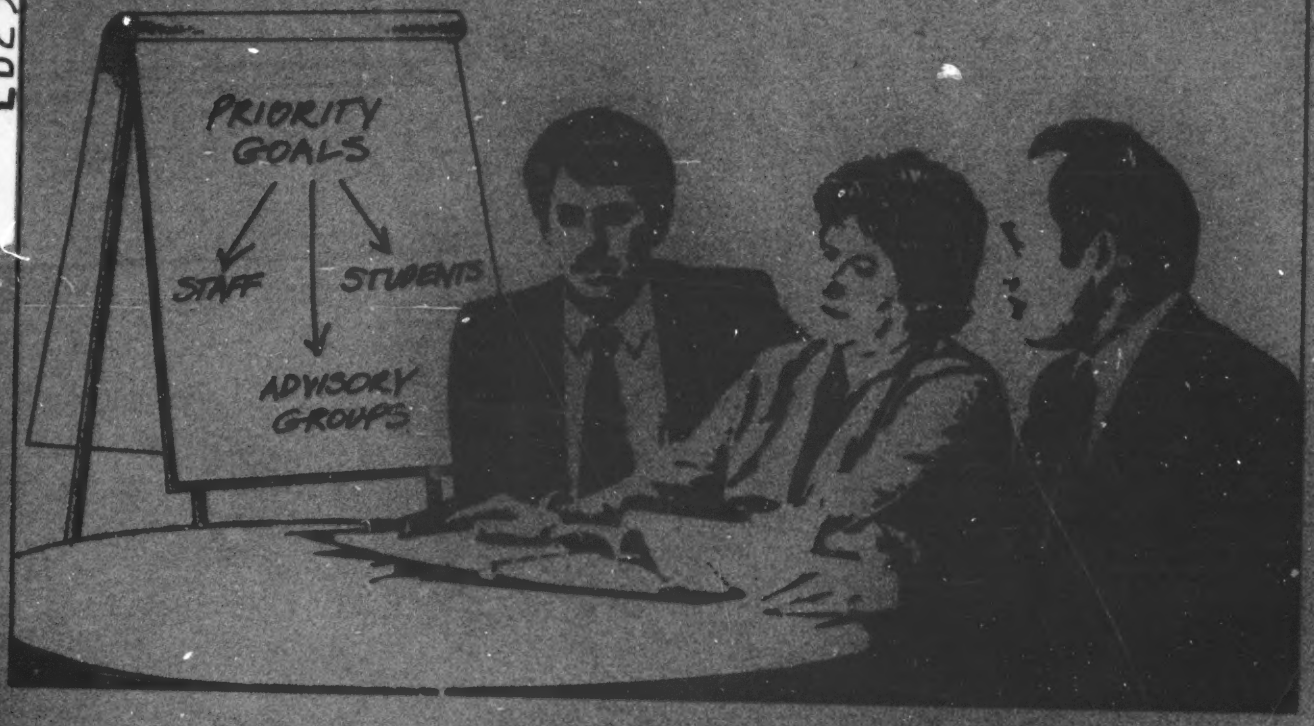


# Using R & D to Improve Local Schools

EA 016 170

Northwest Regional Educational Laboratory

The Northwest Regional Educational Laboratory, through the Goal Based Education Program, has utilized many resources to develop the effective schooling approach explained in this booklet. Major contributions to the effort were made by the Alaska Department of Education and the National Institute of Education, with other contributions from states and districts in the Northwest region.

Other contributors included NWREL staff members Dr. Rex Hagans, Instructional Improvement Division; Dr. Ann Murphy, Training Center; Tom Olson, Division of Planning and Services Coordination; Dr. Joseph Pascarelli, Dissemination Services; Dr. Robert Rath, Executive Director; Dr. William Savard, Assessment and Measurement; Dr. Ethel Simon-McWilliams, Associate Director and Ronald M. Smith, Goal Based Education.

Developmental work in the area of effective schooling continues through these contributors and other state and local educational agencies. Any opinions expressed in this publication do not necessarily reflect the position of the contributors noted above and no official endorsement by them should be inferred.

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June 1983

# *Using R & D to Improve Local Schools*

Improving schools continues to be an important priority throughout the country, and the processes of school improvement are continually being refined. Recent work by the Goal Based Education Program at the Northwest Regional Educational Laboratory (NWREL) indicates that research and development processes and results can be used for local school improvement in a variety of contexts.

To assist in local school improvement, NWREL has developed an approach in which teams of local educational leaders are made aware of the results of effective schooling research and are trained in the processes of change and improvement. This approach provides a method for planning and implementation of long-term change that can improve local schools.

There are many variables in local situations which may affect the application of research and development results. Across the country, schools have major improvement activities under way. The selection of specific effective schooling practices and the use of the improvement process described here should be controlled by local leadership decisions as to how they can best support and enhance ongoing efforts and locally-identified needs.

Finally, a cautionary note. The practices and processes described here, when integrated into a locally-determined plan of action, can be of significant assistance in the improvement of individual schools: they <u>cannot</u> legitimately be utilized as checklists or instruments of any kind for evaluating the performance of individual teachers or principals.

# *The Improvement Process*

To assist schools and districts in the implementation of research-based effective schooling practices, NWREL has developed an innovative, straightforward plan. There are eight steps in this improvement process:

*1. Selecting leadership teams to lead local school improvement planning and implementation*

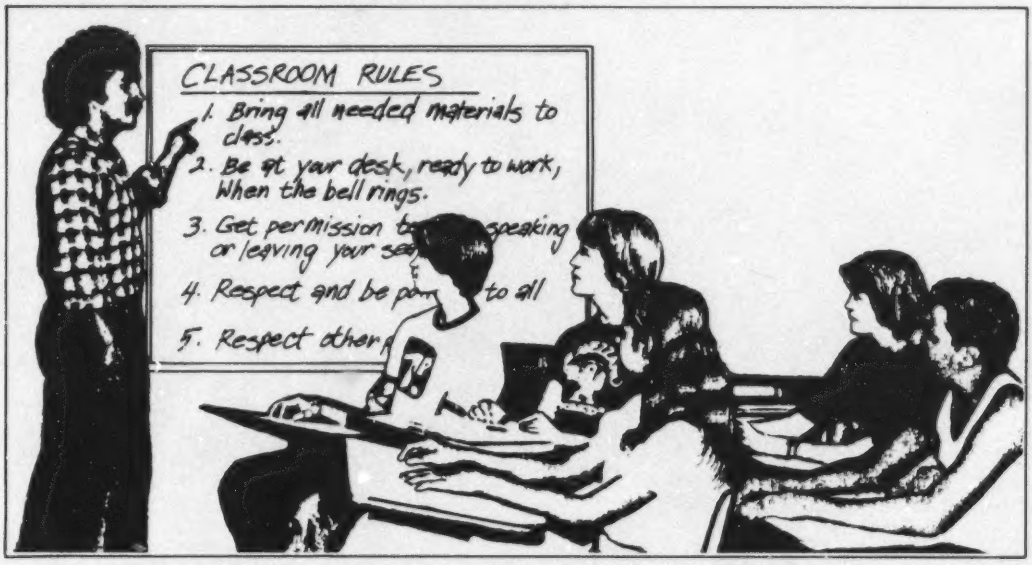
Research shows that involving school and district personnel in addition to the school principal increases the degree of success of any school improvement effort. In the NWREL approach, a leadership team from each local school is selected to include the principal, two or more teachers and a representative from the district central office. This team facilitates the planning and implementation of effective practices in the school.

*2. Profiling the school*

In order to make improvement changes, it is necessary to know what is actually going on in the school: both strengths and weaknesses related to student performance need to be identified before any definite planning can take place. To profile the school, the leadership team looks at student accomplishments in several areas including academic achievement, attitudes and social behavior. A broad picture is desired, one that checks performance for all groups of students across many or all curriculum areas.

*3. Defining strengths and weaknesses*

The team analyzes information collected in the profile and writes brief descriptions of the schools' strengths and


CLASSROOM RULES
1. Bring all needed materials to class.
2. Be at your desk, ready to work, When the bell rings.
3. Get permission to
or leaving your
4. Respect and be
to all
5. Respect other

In effective schools, all students know they are expected to meet high standards of excellence

weaknesses. It is as important for schools to know that they are doing exceptionally well in some areas as it is for them to know that they are somewhat weak in other areas.

*4. Identifying areas for improvement*

Using the descriptions of strengths and weaknesses, the team decides on an area of student achievement and/or behavior to improve in the school. This improvement goal should be consistent with parent, student, staff and district interests, concerns and goals.

*5. Developing a research-based prescription for improvement*

The team reviews effective schooling research results to identify specific practices to be used in the school that will help reach the improvement goals in student achievement or social behavior.

### *6. Planning for prescription implementation*

The team creates a plan for putting selected effective schooling practices to work in the school. The implementation plan involves gaining central office, community and faculty support; providing staff training; identifying and collecting the necessary resources; and completing any needed development work. With the plan, the team provides a "how-to-do-it" approach for the school.

### *7. Implementing the plan*

Team members follow the steps set out in the implementation plan, working with staff and with the community as needed.

### *8. Monitoring progress and reporting results*

The team organizes and coordinates the collection of information about whether or not the implementation plan is carried out. Secondly, the team monitors changes in practice which result from implementation of the plan. Finally, changes in student achievement and/or social behavior are monitored.

## *Using Research Results to Improve Schools*

The improvement process focuses on increasing school effectiveness. Effective schools are schools in which most students reach high levels of academic achievement and exhibit excellence in social behavior. Specific elements of schooling at the classroom, building and district levels have been shown to promote school effectiveness. These elements are called effective schooling practices and have been identified through extensive reviews of research on schooling.

The effective schooling practices were identified through research reviews in six areas:

- School effects research wherein each school was studied as a unit, primarily schools that are unusally effective in promoting student learning. The other research components are integrated within the framework of findings derived from these studies.

- Teacher effects research in which the unit of analysis was the individual teacher in the classroom, primarily teachers who are unusually effective in promoting student learning.

- Research on instructional leadership, primarily studies of principals who are exceptionally effective in promoting student learning through their management practices.

- Research on curriculum alignment, focusing on studies of schools in which instructional objectives, resources and strategies used for teaching to objectives and assessment methods used to measure student achievement are matched precisely.

- Research on program coupling, examining school organization across levels and its effect on student achievement.

- Implementation research, focusing on studies of change processes or school improvement efforts to identify conditions and practices which promote significant, durable changes in educational programs.

Studies reviewed took place in many situations and locations throughout the country.

Through completion of these research reviews, the Northwest Regional Educational Laboratory derived areas of effective schooling practices which can contribute to school improvement. These areas include Leadership, School Environment, Classroom Instruction and Management, Curriculum and Assessment and Evaluation. Within each of these areas, specific practices have been identified which can be directly applied in schools.

While these effective schooling practices can probably be useful at all levels of schooling and for all types of students, it is important to note certain factors which limit the parameters of the effectiveness research. Most studies, for example, found co-occurrences rather than causes but did demonstrate that when high achievement is present, effective practices are also in place. While the practices do seem to work across grade levels and subject matter, there is uncertainty about the breadth of applicability and whether findings should or can be generalized to all schools. The relative degree of effect of individual practices cannot as yet be identified, and as currently defined, effective schooling focuses on cognitive achievement in basic skills, only one measure of effectiveness. Finally, effective practices are interactive with one another, and instituting a single practice will probably not result in high student achievement: the presence of a number of mutually supporting practices is necessary to cause and sustain effectiveness. However, NWREL believes that the implementation of effective schooling practices in districts, schools and classrooms can improve schools.

# *Choosing and Implementing Effective Practices*

Research-based school improvement is founded on an extensive body of research completed in many locations and in many schooling situations throughout the country. From these research studies, NWREL identifed the areas of effective schooling cited earlier. Within each of these areas of practice, sub-groups of practices have been identified, as listed in Figure 1.

Each sub-group of practices contains general descriptions of ways to increase school effectiveness. The area of effective schooling called "Classroom Instruction and Management," for example, includes 11 sub-groups of practices. Specific practices contained in two of these 11 sub-groups are listed in Figure 2, "Classroom Routines and Procedures" and "Instruction and Direction."

As implementation planning begins, leadership teams refer to the lists of effective practices (contained in full in a separate NWREL publication) and decide which practices would be most useful in meeting their local improvement goals. A school where classroom interruptions are adversely affecting student achievement, for example, might choose to adopt the practice that "Teachers handle administrative matters in quick, efficient routines and keep class interruptions at a minimum" (see Figure 2).

Using a NWREL-developed "Resource Kit" of references containing specific methods and techniques cross-referenced to the practices (a separate NWREL publication), the school leadership team looks to the resources to better understand the methodology necessary to minimize disruptions. Selecting from among numerous resources associated

*Figure 1.*

## *Elements of Effective Schooling*

### *Leadership*

- Identifying School Needs
- Determining Implementation Level of Effective Schooling Practices
- Developing Status Report
- Defining Improvement Goals
- Planning Improvement Approach
- Preparing Staff for Improvement Implementation
- Securing Resources to Support Improvements
- Monitoring and Evaluating Implementation of Improvements
- Renewing Improvement Efforts Annually or Biennially

### *School Environment*

- Expectations for Student Learning
- Expectations for Student Social Behavior
- Expectations for Staff
- Use of Time
- Rewards and Incentives
- Parent Involvement

### *Curriculum*

- Learning Objectives
- Resources
- Instructional Strategies and Techniques

### *Classroom Instruction and Management*

- Expectations for Behavior
- Classroom Routines and Procedures
- Managing Student Behavior
- Expectations for Learning
- Placement and Grouping
- Stage Setting
- Instruction and Direction
- Use of Time
- Review and Reteaching
- Student/Teacher Interactions
- Incentives and Rewards for Student Achievement and Behaviors

### *Assessment and Evaluation*

- Alignment
- Procedures
- Uses of Assessment Data
- Monitoring Staff Performance.

***Figure 2.***

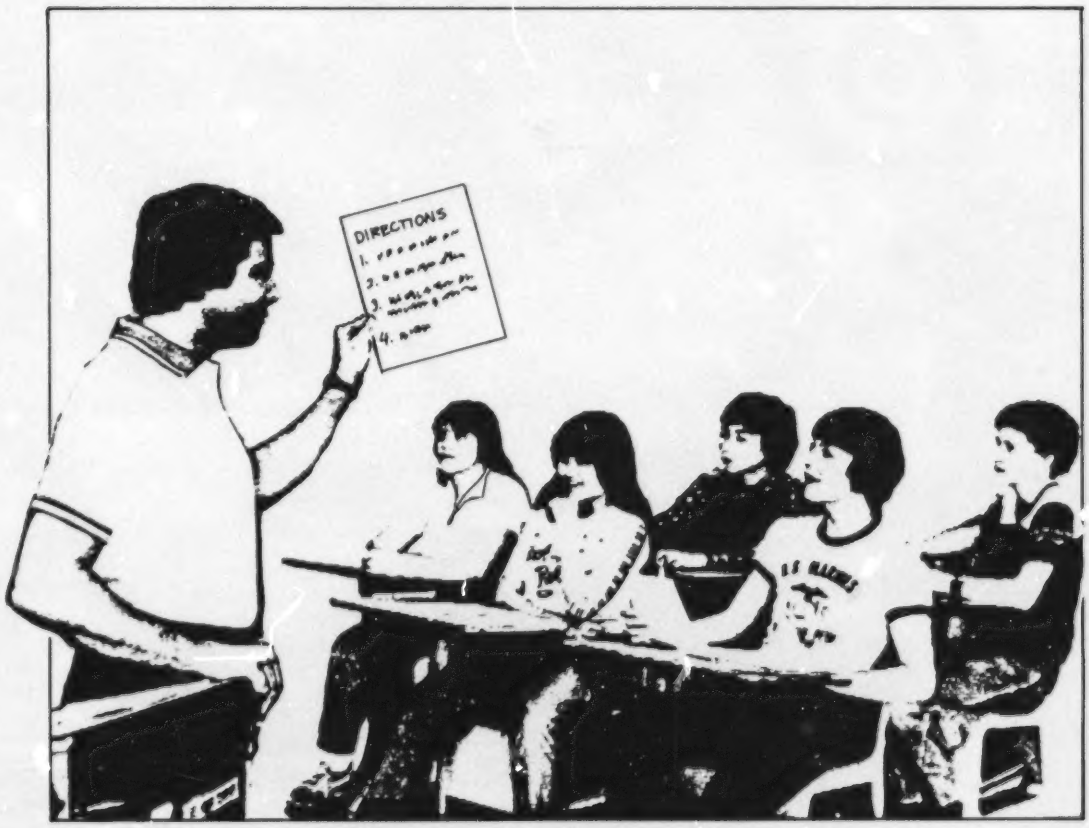
## *CLASSROOM INSTRUCTION AND MANAGEMENT*
## *Effective Schooling Practices*

| | |
|---|---|
| *Classroom routines and procedures* | • Class starts quickly and purposefully, and teachers have assignments or activities ready for students when they arrive. Materials and supplies are ready, too.<br>• Students make sure they bring materials they need to class each day. They use readily available storage space as needed.<br>• Teachers handle administrative matters in quick, efficient routines and keep class interruptions at a minimum. |
| *Instruction and direction* | • Teachers give students background information and clear written and verbal directions, letting them know that materials and lessons will help them reach learning objectives.<br>• Students who succeed at learning learn more, so teachers select academic tasks that assure a high rate of success. Students have plenty of opportunity for both guided and independent practice.<br>• During lessons, teachers ask clear, concrete, simple questions and make sure all students have a chance to respond.<br>• Teachers assign homework students can successfully complete. Directions are clear, and students write them down to avoid forgetting them. Teachers check homework and give students quick feedback.<br>• Parents help keep students involved in learning. Teachers let parents know that homework is important, give them tips on how to help students keep working, and let them know how students are doing. Parents keep track of student progress and help them follow through on homework. |

with reducing classroom disruptions, the team might use, for example, "Organizing and Managing the Junior High Classroom" (Emmer, et al., R&D Report, No. 6151, Classroom Organization and Effective Teaching Project, The Research and Development Center for Teacher Education, The University of Texas at Austin, pp.25-26):

*II. PROCEDURES DURING INSTRUCTIONAL ACTIVITIES--Rules/Procedures*

| | | |
|---|---|---|
| *1.* | *How will students contact you if they have questions or need help?* | *Most effective managers require students to raise their hands in order to be called on, with no exceptions. When students are working at their seats and need help, you should have* |

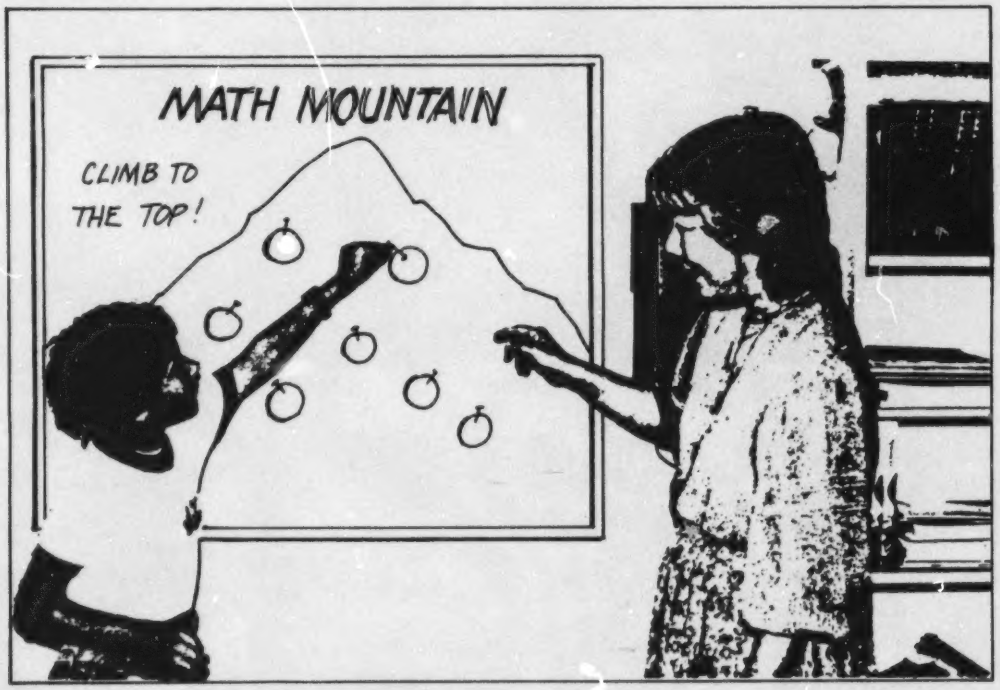



**Teachers give students background information and clear written and verbal directions, letting them know that materials and lessons will help them reach learning objectives.**

| | | |
|---|---|---|
| | *Where will you work with individual students who need extra help?* | *them raise their hands and you go to them, or they may come to you. This will avoid long lines or chatty groups by your desk, it will allow <u>you</u> to control where you give individual assistance so that you can better monitor the class, and it will allow quiet, private contacts which will not disturb the class nor embarrass the student you are helping. If you choose to help students at a location other than their desks, choose a location with plenty of room, out of the way of traffic and the chalkboard or other displays students must be able to see.* |
| 2. | *Under what conditions may students leave their seats (to go to the pencil sharpener, turn in papers, etc.)?* | *To eliminate unnecessary wandering around the room, you should indicate when students are allowed to leave their seats. For example, students may sharpen pencils only when you are not actively teaching a lesson or onlky during seatwork or before class.* |
| 3. | *Under what conditions will you allow students to leave the room to go to the bathroom or other locations (e.g., the office, library, lockers)? What procedure will you need for allowing students to leave the room?* | *This procedure must be established early in the year and consistently followed. Students should not be allowed to leave the room except in emergencies, as determined by the teacher. Students should be told that the passing period is normally sufficient time for going to the restrooms, lockers, etc. If an unusual circumstance arises, they should talk to you first....* |
| 7. | *What will students do if they complete a seatwork assignment early?* | *If you have enrichment activities for faster working students, you will need to specify exactly when these* |

*materials may be used, how many students may be involved in any single activity, where the materials will be kept, and what the procedures are for returning any materials to their proper places.*

In another situation, a school leadership team might decide that students' non-completion of homework is resulting in low achievement and determine their priority is to change homework practices in the school: "Parents help keep students involved in learning. Teachers let parents know that homework is important, give them tips on how to help students keep working, and let them know how students are doing. Parents keep track of student progress and help them follow through on homework." (Figure 2.) This team refers to the "Resource Kit," and works with methods and techniques described in




**Effective schools establish classroom and building level systems of incentives and rewards for students.**

Creating Effective Schools (Brookover, et al., Learning Publications, Inc., 1982, pp. 271-274):

*The School Plan*

*The school plan should encompass both parent support and parent involvement, but emphasis should be on parent support since all parents can be expected to give support but not all parents can be involved at school. It should be simple and easily understood, identifying clearly what parents can do at home or school to promote student achievement. Also, it is important that the school plan be brief and concise. This will facilitate understanding of what is being said and help teachers and parents to remember the scope of the message....*

*School Plan for Parent Support Involvement*

*Having each student achieve high levels of academic performance is the most important goal of our school. Having parents support this goal will make it happen. We need the help of every parent. The school must have your support and involvement this year if we are to be succesful.*

*The _____ School staff is counting on you to SUPPORT your child in becoming a high achiever. As a parent, the school expects you to show your child, through words and actions, that you SUPPORT:*

*A. School Program*
1. *The student achievement goal.*
2. *The school homework policy.*
3. *The school attendance policy*
4. *The school discipline plan*
5. *Parent-teacher conferences.*

*B. Home Learning Climate*
1. *Encourage and expect high performance from your child for school work, household duties, and other responsibilities. Insist on accountability.*
2. *Show interest in what your child does each day in the classroom--know what is going on.*
3. *Provide proper conditions for home study:*
   *a) definite study time*
   *b) quiet and non-distracting conditions*
4. *Limit time spent watching TV.*
5. *Provide supervision to ensure your child receives adequate rest, nutrition, and physical exercise.*

*To the extent your schedule permits, we encourage you to be INVOLVED in the school by:*

1. *Contacting the school for information or to resolve a concern.*
2. *Volunteering to help with at least one (1) school activity.*
3. *Attending at least one (1) P.T.A. meeting a semester.*
4. *Visiting your child's classroom at least one (1) time during the year.*

*The _____School staff has high expectations for your child's academic achievement this year. We need your cooperation and support!*

**As each practice or group of practices is implemented, the leadership team monitors its progress according to its implementation plan, monitors the actual implementation of practice(s) and monitors changes in student achievement and/or behavior.**

## *Ongoing Research-Based School Improvement*

Research-based school improvement is a dynamic process that continues in cycles as schools move to increase student achievement and improve student behavior. As each implementation plan developed by the school leadership team is completed and practices are put into place in the school, the team once again begins the eight-step process to profile the school, identify an area of weakness and proceed with planning and implementing new improvements.

The research base itself continues to change, as new studies are completed providing further information about practices which make schools effective. As research is completed, the Northwest Regional Educational Laboratory evaluates the research, identifies effective schooling practices and continues to expand and refine the research base. In using the NWREL research-based school improvement approach,

Leaders in effective schools establish goals and set priorities, often involving staff in this process.

schools can continue to work toward increasing school effectiveness with current information about what makes schools effective.

As schools and districts apply research and development for school improvement, NWREL can provide special assistance in the school profiling process, in the use of research-based effective schooling practices for planning and implementing improvements and in monitoring improvement efforts toward locally established school improvement goals. For further information, contact Dr. Robert E. Blum, Director, Goal Based Education Program, Northwest Regional Educational Laboratory, 300 S.W. Sixth Avenue, Portland, Oregon 97204, 503/248-6800.

Goal Based Education Program